FIG 1

PRODUCTION 101

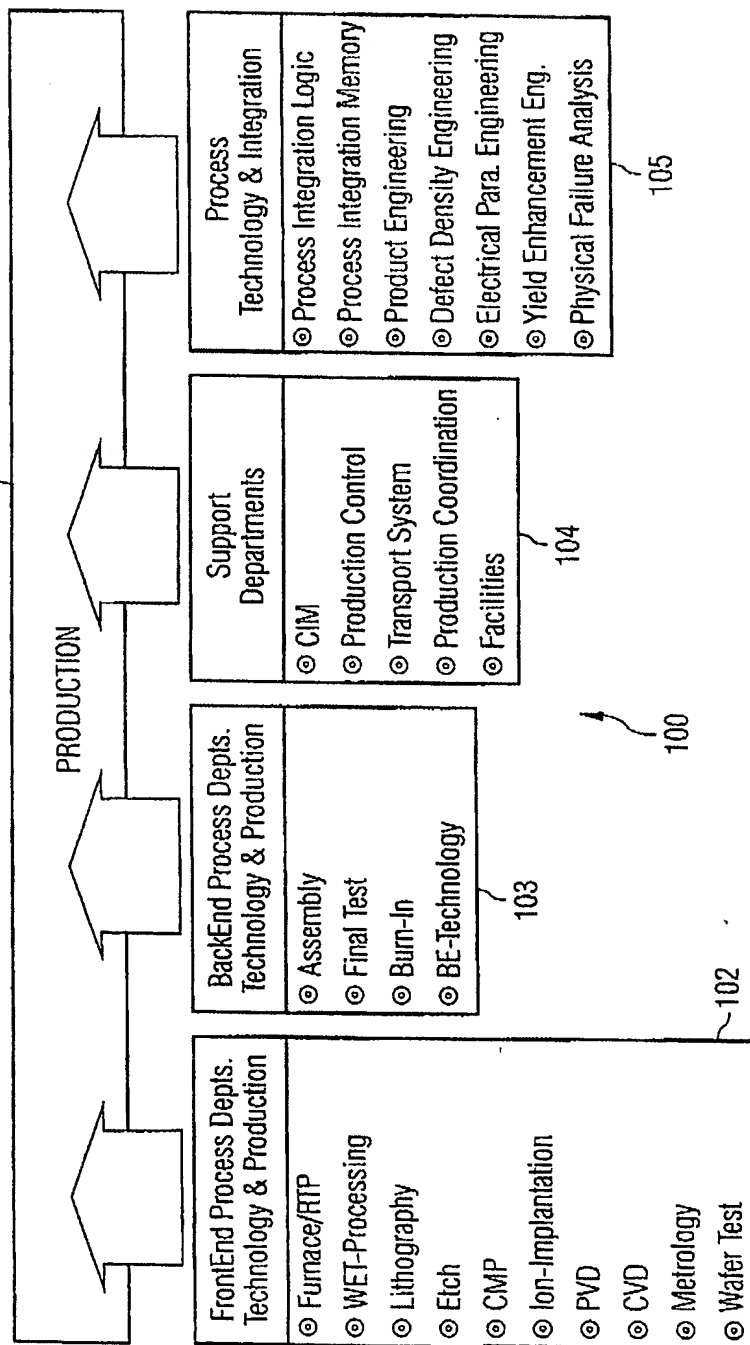| FrontEnd Process Depts. Technology & Production	BackEnd Process Depts. Technology & Production	Support Departments	Process Technology & Integration
⊙ Furnace/RTP	⊙ Assembly	⊙ CIM	⊙ Process Integration Logic
⊙ WET-Processing	⊙ Final Test	⊙ Production Control	⊙ Process Integration Memory
⊙ Lithography	⊙ Burn-In	⊙ Transport System	⊙ Product Engineering
⊙ Etch	⊙ BE-Technology	⊙ Production Coordination	⊙ Defect Density Engineering
⊙ CMP		⊙ Facilities	⊙ Electrical Para. Engineering
⊙ Ion-Implantation			⊙ Yield Enhancement Eng.
⊙ PVD			⊙ Physical Failure Analysis
⊙ CVD			
⊙ Metrology			
⊙ Wafer Test			

102

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FIG 2

Illustration of Production Complexity

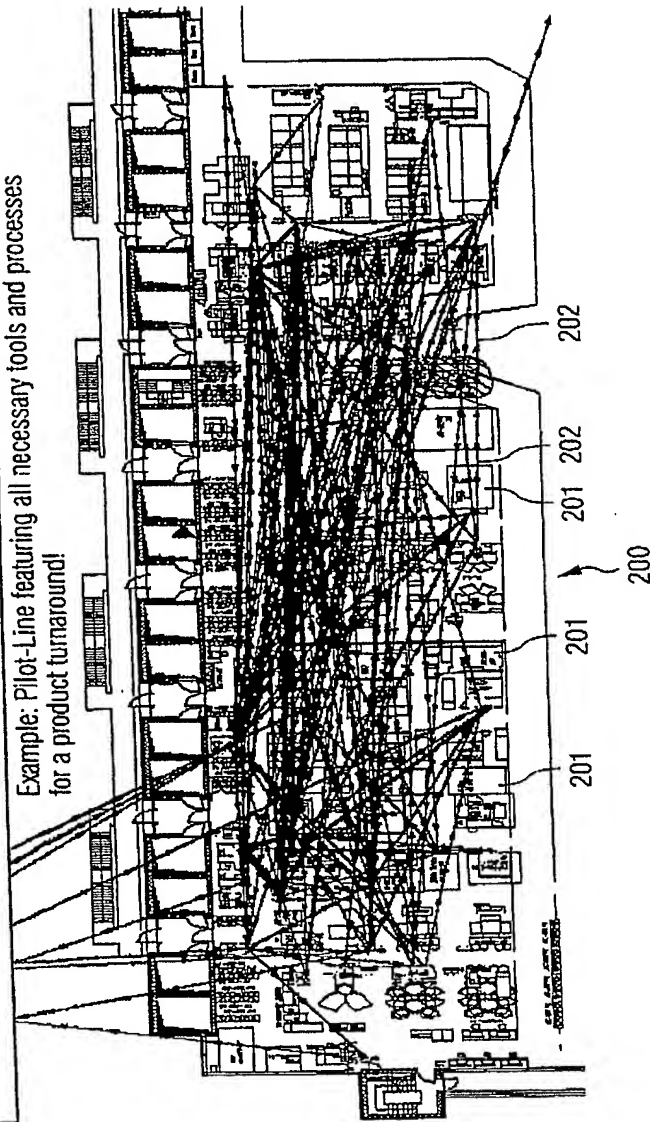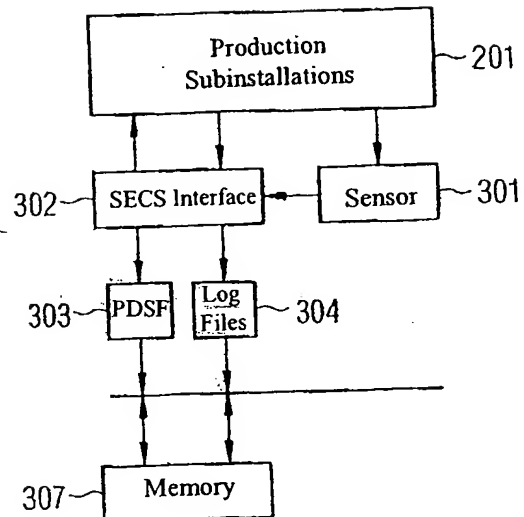Example: Pilot-Line featuring all necessary tools and processes for a product turnaround!

202

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FIG 3

```
┌─────────────────────────┐
│   Production            │ ── 201
│   Subinstallations      │
└─────────────────────────┘
     │    │    │
     ↕    ↓    ↓
┌──────────────┐      ┌──────────┐
302 ─│ SECS Interface│◄─────│  Sensor  │ ── 301
     └──────────────┘      └──────────┘
        │      │
        ↓      ↓
   ┌──────┐ ┌──────┐
303─│ PDSF │ │ Log  │ ── 304
   └──────┘ │Files │
            └──────┘
        │      │
        ↕      ↕
   ─────────────────────────
        │      │
        ↓      ↓
     ┌──────────────┐
307 ─│   Memory     │
     └──────────────┘
```

FIG 4

```
408 ─┌──────────────┐◄──────────────────────┐
     │ process step │                        │
     └──────────────┘                        │
            │                                │
       409  ↓                                │
        ◇─────────◇   yes                    │
       ╱ criterion ╲──────────┐              │
        ◇─────────◇        410 │              │
            │               ↓              │
          no │        ┌──────────────────┐   │
            │        │ test measurement │   │
            │        └──────────────────┘   │
            │           411  │              │
            │            ◇──────────◇  yes   │
            │           ╱  to be     ╲──────┘
            │            ◇ controlled? ◇
            │            ◇──────────◇
            │              no │
            │                 │
            ↓◄────────────────┘
     ┌──────────────┐
412 ─│ process step │
     └──────────────┘
```